

COOLANT

REPLACEMENT

1. REMOVE NO. 1 ENGINE UNDER COVER (See page EM-21)

2. DRAIN ENGINE COOLANT

- (a) Loosen the radiator drain cock plug.

HINT:

Collect the coolant in a container and dispose of it according to the regulations in your area.

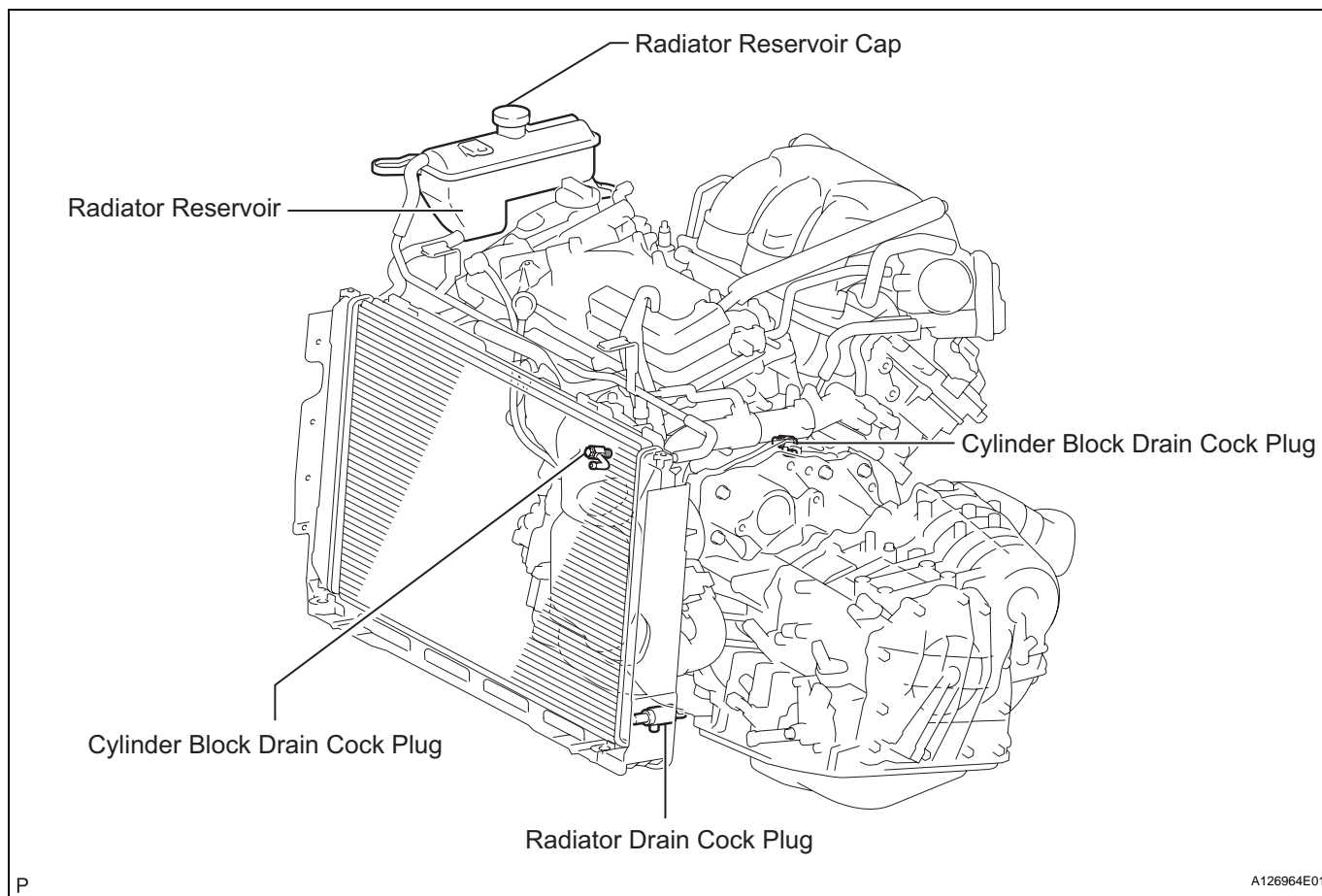
- (b) Remove the radiator reservoir cap.

CAUTION:

Do not remove the radiator reservoir cap while the engine and radiator are still hot.

Pressurized, hot engine coolant and steam may be released and cause serious burns.

- (c) Loosen the 2 cylinder block drain cock plugs.

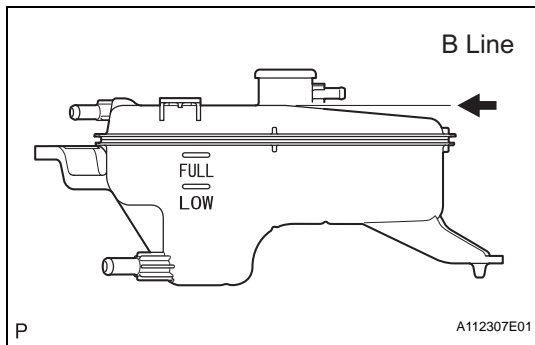


3. ADD ENGINE COOLANT

- (a) Tighten the radiator drain cock plug by hand.
(b) Tighten the 2 cylinder block drain cock plugs.

Torque: 12.7 N*m (130 kgf*cm, 10 ft.*lbf)

- (c) Add TOYOTA Super Long Life Coolant (SLLC) to the radiator reservoir filler opening.



- (d) Continue adding TOYOTA SLLC until it is filled to the B line at the base of the reservoir's filler neck.

Standard capacity

Item	Specified Condition
STD (A/T)	8.9 liters (9.4 US qts, 7.8 Imp. qts)
TWG (A/T)	9.3 liters (9.8 US qts, 8.2 Imp. qts)

HINT:

TOYOTA vehicles are filled with TOYOTA SLLC at the factory. In order to avoid damage to the engine cooling system and other technical problems, only use TOYOTA SLLC or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, non-borate coolant with long-life hybrid organic acid technology (coolant with long-life hybrid organic acid technology consists of a combination of low phosphates and organic acids).

NOTICE:

Never use water as a substitute for engine coolant.

- (e) Press the No. 1 and No. 2 radiator hoses several times by hand, and then check the level of the coolant. If the coolant level drops below the B line, add TOYOTA SLLC to the B line.
- (f) Install the radiator reservoir cap.
- (g) Start the engine and warm it up until the cooling fan operates. While the cooling fan operates, circulate the coolant for several minutes.
- (1) Set the air conditioning as follows while warming up the engine.

Item	Specified Condition
Manual Air Conditioning System	Fan speed: Any setting except OFF
	Temperature: Toward WARM Air conditioning switch: OFF
Automatic Air Conditioning System	Temperature: Toward MAX Air conditioning switch: OFF

- (2) Maintain the engine speed at 2,000 to 2,500 rpm and warm up the engine until the cooling fan operates.

NOTICE:

- **Make sure that the radiator reservoir still has some coolant in it.**
- **Pay attention to the needle of the water temperature meter. Make sure that the needle does not show an abnormally high temperature.**
- **If there is not enough coolant, the engine may burn out or overheat.**
- **Immediately after starting the engine, if the radiator reservoir does not have any coolant, perform the following: 1) stop the engine, 2) wait until the coolant has cooled down, and 3) add coolant until the coolant is filled to the B line.**

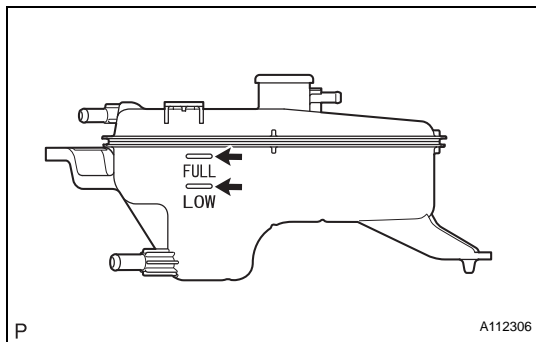
- Run the engine at 2,000 rpm until the coolant level has stabilized.

- (h) Press the No. 1 and No. 2 radiator hoses several times by hand to bleed air.

CAUTION:

When pressing the radiator hoses:

- Wear protective gloves.
 - Be careful as the radiator hoses are hot.
 - Keep your hands away from the radiator fan.
- (i) Stop the engine and wait until the coolant cools down to ambient temperature.
- (j) Check that the coolant level is between the FULL and LOW line.
- If the coolant level is below the LOW line, repeat all of the procedures above.
- If the coolant level is above the FULL line, drain coolant so that the coolant level is between the FULL and LOW line.



4. **CHECK FOR ENGINE COOLANT LEAKAGE** (See page [CO-1](#))

5. **INSTALL NO. 1 ENGINE UNDER COVER** (See page [EM-41](#))